

Application Number

IDS Flag Clearance for Application 10779984

IDS Information

Content	Mailroom Date	Entry Number	IDS Review	Last Modified	Reviewer
M844	2004-02-17	15	Y <input checked="" type="checkbox"/>	2006-11-13 22:22:01.0	MLe
<input type="button" value="Update"/>					

EAST Search History

Updated Search
10/779,984

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	25349	(soaker adj application) or "soaker application" or multi-application or (multiple adj application) or (plurality adj application)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:08
L2	22	("over-consuming" or over-consum\$4 or (over adj consum\$4)) near3 (memory or resource or storage)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:08
L3	1	L1 and L2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:09
L4	110	("over-consuming" or over-consum\$4 or (over adj consum\$4)) same (memory or resource or storage)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:11
L5	1	1 and 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:10
L6	91624	(predeterm\$4 or preset\$4 or predefin\$4) adj3 rate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:11
L7	8374	(memory or resource or storage) same consumption same rate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:12
L8	380926	time adj interval	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:12

EAST Search History

L9	112	6 and 7 and 8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:13
L10	6990	(failover or fail-over or (fail adj over))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:13
L11	0	9 and L10	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:13
L12	0	threshold and 10 and 9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:14
L13	46	threshold and 9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:14
L14	2	13 and 1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:15
L15	0	13 and 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:15
L16	0	(714/4).ccls. and 13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:15

EAST Search History

L17	0	(714/5).ccls. and 13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:15
L18	0	(714/5).ccls. and 9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:15
L19	0	(714/4).ccls. and 9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:16
L20	0	(714/29).ccls. and 9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:16
L21	0	(714/54).ccls. and 9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:16
S1	20	("over-consuming" or over-consum\$4 or (over adj consum\$4)) near3 (memory or resource or storage)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:10
S2	23409	(soaker adj application) or "soaker application" or multi-application or (multiple adj application) or (plurality adj application)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 08:44
S4	1	S1 same S2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 08:49

EAST Search History

S6	53542	(predeterm\$4 or preset\$4 or predefin\$4) adj (rate or memory)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:10
S7	204141	threshold adj value	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 08:52
S8	0	S1 and S6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 08:52
S9	2	S1 and S7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 08:54
S10	21032	load adj balanc\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 16:44
S11	6272	(failover or fail-over or (fail adj over))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:10
S12	13	stall\$3 adj node	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:11
S13	1017	rate with memory with consumption	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:12

EAST Search History

S14	207	select\$3 adj unit adj time	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:12
S15	0	S13 same S14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:13
S16	1361	threshold with memory with load\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:14
S17	43	limit\$4 same (share\$3 adj memory adj resource)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:44
S18	3510	auxiliary near3 processor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:33
S19	0	S11 same S18	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:33
S20	41	S11 and S18	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:33
S21	12	S16 and S17	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:33

EAST Search History

S22	0	S20 and S21	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:35
S23	0	S13 and S14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:40
S24	53542	(predeterm\$4 or preset\$4 or predefin\$4) adj (rate or memory)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:40
S25	204141	threshold adj value	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:43
S26	2910	S24 and S25	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:40
S27	1	S26 and S13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:42
S28	19	S24 and S13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:43
S29	0	S28 and threshold and (share\$3 adj memory adj resource)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:45

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S30	0	S28 and threshold and (memory adj resource)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:45
S31	7	S28 and threshold	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:46
S32	7	(munson-matthew\$).in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:49
S33	1669	(714/4).ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 09:15
S34	998	(714/5).ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:50
S35	82	(714/29).ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 17:50
S36	288	(714/54).ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 22:20
S37	12	("5991524" "6115830" "6163855" "6336171" "6401120" "6490610").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 22:45

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S39	20	("over-consuming" or over-consum\$4 or (over adj consum\$4)) near3 (memory or resource or storage)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 22:50
S40	17171	(predeterm\$4 or preset\$4 or predefin\$4) same rate same memory	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 23:03
S41	5173	(predeterm\$4 or preset\$4 or predefin\$4) with rate with memory	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 23:03
S42	1653	memory adj consumption	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 23:04
S43	0	S41 same S42	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/06 23:04
S44	14	S41 same consumption same (match or compar\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/07 11:24

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Sun, 15 Apr 2007, 5:01:21 PM EST

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#2	((memory consumption<in>metadata) <and> (failover<in>metadata))<and> (threshold<in>metadata)	0
#3	((memory<in>metadata) <and> (over-consumption<in>metadata))<and> (threshold<in>metadata)	0
#4	((load balancer<in>metadata) <and> (failover<in>metadata))<and> (over-consumption<in>metadata)	0
#5	((failover<in>metadata) <and> (memory<in>metadata))<and> (over-consumption<in>metadata)	0



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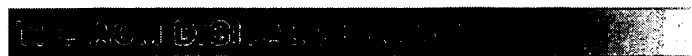


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Relevance scale ☐ ☐ ☐ ☐ ☐1 [Capturing, indexing, clustering, and retrieving system history](#)
 Ira Cohen, Steve Zhang, Moises Goldszmidt, Julie Symons, Terence Kelly, Armando Fox
 October 2005 **ACM SIGOPS Operating Systems Review , Proceedings of the twentieth ACM symposium on Operating systems principles SOSP '05**, Volume 39 Issue 5

Publisher: ACM Press

Full text available: pdf(516.41 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We present a method for automatically extracting from a running system an indexable *signature* that distills the essential characteristic from a system state and that can be subjected to automated clustering and similarity-based retrieval to identify when an observed system state is similar to a previously-observed state. This allows operators to identify and quantify the frequency of recurrent problems, to leverage previous diagnostic efforts, and to establish whether problems seen at dif ...

Keywords: bayesian networks, clustering, information retrieval, performance objectives, signatures

2 [Ensemble-level Power Management for Dense Blade Servers](#)
 Parthasarathy Ranganathan, Phil Leech, David Irwin, Jeffrey Chase
 May 2006 **ACM SIGARCH Computer Architecture News , Proceedings of the 33rd annual international symposium on Computer Architecture ISCA '06**, Volume 34 Issue 2

Publisher: IEEE Computer Society, ACM Press

Full text available: pdf(333.39 KB) Additional Information: [full citation](#), [abstract](#), [index terms](#)

One of the key challenges for high-density servers (e.g., blades) is the increased costs in addressing the power and heat density associated with compaction. Prior approaches have mainly focused on reducing the heat generated at the level of an individual server. In contrast, this work proposes power efficiencies at a larger scale by leveraging statistical properties of concurrent resource usage across a collection of systems ("ensemble"). Specifically, we discuss an implementation of this appro ...

3 [System architecture directions for networked sensors](#)
 Jason Hill, Robert Szewczyk, Alec Woo, Seth Hollar, David Culler, Kristofer Pister
 November 2000 **ACM SIGOPS Operating Systems Review , ACM SIGARCH Computer Architecture News , Proceedings of the ninth international conference**



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Terms used

soaker application and **over consuming** and **memory** and **threshold** and **failover**

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81 [Session 6: threads: Thread-Level Speculation on a CMP can be energy efficient](#)

 Jose Renau, Karin Strauss, Luis Ceze, Wei Liu, Smruti Sarangi, James Tuck, Josep Torrellas
June 2005

Proceedings of the 19th annual international conference on Supercomputing ICS '05
Publisher: ACM Press

 Full text available: [pdf\(370.24 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

Chip Multiprocessors (CMP) with Thread-Level Speculation (TLS) have become the subject of intense research. However, TLS is suspected of being too energy inefficient to compete against conventional processors. In this paper, we refute this claim. To do so, we first identify the main sources of dynamic energy consumption in TLS. Then, we present simple energy-saving optimizations that cut the energy cost of TLS by over 60% on average with minimal performance impact. The resulting TLS CMP, populat ...

82 [Research sessions: query uncertainty: Efficient set joins on similarity predicates](#)

 Sunita Sarawagi, Alok Kirpal
June 2004 **Proceedings of the 2004 ACM SIGMOD international conference on Management of data SIGMOD '04**
Publisher: ACM Press

 Full text available: [pdf\(265.08 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

In this paper we present an efficient, scalable and general algorithm for performing set joins on predicates involving various similarity measures like intersect size, Jaccard-coefficient, cosine similarity, and edit-distance. This expands the existing suite of algorithms for set joins on simpler predicates such as, set containment, equality and non-zero overlap. We start with a basic inverted index based probing method and add a sequence of optimizations that result in one to two orders of magn ...

83 [New directions in traffic measurement and accounting: Focusing on the elephants, ignoring the mice](#)

 Cristian Estan, George Varghese
August 2003 **ACM Transactions on Computer Systems (TOCS)**, Volume 21 Issue 3

Publisher: ACM Press

 Full text available: [pdf\(1.03 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Accurate network traffic measurement is required for accounting, bandwidth provisioning and detecting DoS attacks. These applications see the traffic as a collection of flows they



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load balancer and **memory consumption** and **share resource** and **threshold** and **failover**
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Relevance scale ☐ ☐ ☐ ☐ ☐**81** [Storage and abstractions: Capsule: an energy-optimized object storage system for](#)[memory-constrained sensor devices](#)

Gaurav Mathur, Peter Desnoyers, Deepak Ganesan, Prashant Shenoy

October 2006 **Proceedings of the 4th international conference on Embedded networked sensor systems SenSys '06****Publisher:** ACM PressFull text available: [pdf\(470.09 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Recent gains in energy-efficiency of new-generation NAND flash storage have strengthened the case for in-network storage by data-centric sensor network applications. This paper argues that a simple file system abstraction is inadequate for realizing the full benefits of high-capacity lowpower NAND flash storage in data-centric applications. Instead we advocate a rich object storage abstraction to support flexible use of the storage system for a variety of application needs and one that is specif ...

Keywords: embedded systems, energy efficiency, file system, flash memory, objects, sensor network, storage system

82 [Software-directed power-aware interconnection networks](#)

Vassos Soteriou, Noel Easley, Li-Shiuan Peh

March 2007 **ACM Transactions on Architecture and Code Optimization (TACO)**, Volume 4 Issue 1**Publisher:** ACM PressFull text available: [pdf\(966.00 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Interconnection networks have been deployed as the communication fabric in a wide spectrum of parallel computer systems, ranging from chip multiprocessors (CMPs) and embedded multicore systems-on-a-chip (SoCs) to clusters and server blades. Recent technology trends have permitted a rapid growth of chip resources, faster clock rates, and wider communication bandwidths, however, these trends have also led to an increase in power consumption that is becoming a key limiting factor in the design o ...

Keywords: Software-directed power reduction, communication links, dynamic voltage scaling, interconnection networks, on-chip networks, simulation

83 [Memory forwarding: enabling aggressive layout optimizations by guaranteeing the](#)

EAST Search History

Interference Search 10/779,984

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1776	(714/4).ccls.	US-PGPUB; USPAT	OR	ON	2007/04/15 17:04
L2	1027	(714/5).ccls.	US-PGPUB; USPAT	OR	ON	2007/04/15 17:04
L3	84	(714/29).ccls.	US-PGPUB; USPAT	OR	ON	2007/04/15 17:04
L4	297	(714/54).ccls.	US-PGPUB; USPAT	OR	ON	2007/04/15 17:04
L5	104	("over-consuming" or over-consum\$4 or (over adj consum\$4)) same (memory or resource or storage)	US-PGPUB; USPAT	OR	ON	2007/04/15 17:06
L6	22664	(soaker adj application) or "soaker application" or multi-application or (multiple adj application) or (plurality adj application)	US-PGPUB; USPAT	OR	ON	2007/04/15 17:06
L7	35883	(predeterm\$4 or preset\$4 or predefin\$4) adj (rate or memory)	US-PGPUB; USPAT	OR	ON	2007/04/15 17:07
L8	2809	load adj balancer	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/04/15 17:07
L9	30	8 same network same 6	US-PGPUB; USPAT	OR	ON	2007/04/15 17:08
L10	0	9 same 7	US-PGPUB; USPAT	OR	ON	2007/04/15 17:08
L11	0	9 and 7	US-PGPUB; USPAT	OR	ON	2007/04/15 17:10
L12	0	9 and 1	US-PGPUB; USPAT	OR	ON	2007/04/15 17:11
L13	0	9 and 2	US-PGPUB; USPAT	OR	ON	2007/04/15 17:11
L14	0	9 and 3	US-PGPUB; USPAT	OR	ON	2007/04/15 17:11
L15	0	9 and 4	US-PGPUB; USPAT	OR	ON	2007/04/15 17:11
L16	1218	threshold with memory with load\$3	US-PGPUB; USPAT	OR	ON	2007/04/15 17:11
L17	6317	(failover or fail-over or (fail adj over))	US-PGPUB; USPAT	OR	ON	2007/04/15 17:13
L18	0	16 and 17 and 6 and 7	US-PGPUB; USPAT	OR	ON	2007/04/15 17:14

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L19	1	16 and 17 and 1	US-PGPUB; USPAT	OR	ON	2007/04/15 17:14
L20	0	16 and 17 and 2	US-PGPUB; USPAT	OR	ON	2007/04/15 17:14
L21	0	16 and 17 and 3	US-PGPUB; USPAT	OR	ON	2007/04/15 17:14
L22	0	16 and 17 and 4	US-PGPUB; USPAT	OR	ON	2007/04/15 17:14